



Micro Commercial Components  
 21201 Itasca Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# FST7120SM THRU FST71100SM

## Features

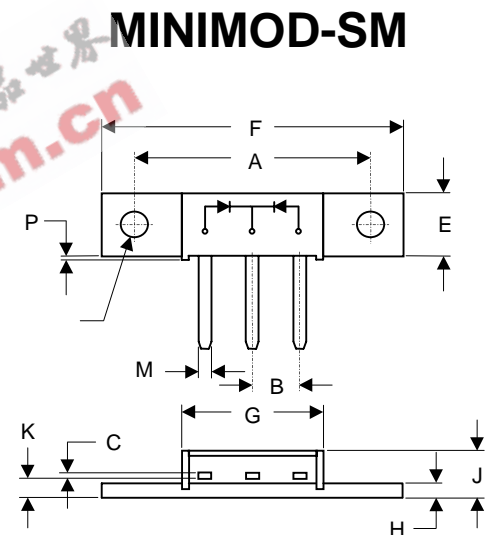
- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

## 70 Amp Schottky Barrier Rectifier 20 to 100 Volts

## Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FST7120SM	20V	14V	20V
FST7130SM	30V	21V	30V
FST7135SM	35V	24.5V	35V
FST7140SM	40V	28V	40V
FST7145SM	45V	31.5V	45V
FST7160SM	60V	42V	60V
FST7180SM	80V	56V	80V
FST71100SM	100V	70V	100V



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	70 A	$T_A = 100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	$I_{FM} = 30.0A;$ $T_A = 25^\circ\text{C}$	
FST7120-7145SM		.50 V	
FST7160SM		.75 V	
FST7180-71100SM		.84 V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	240pF	Measured at 1.0MHz, $V_R=4.0V$

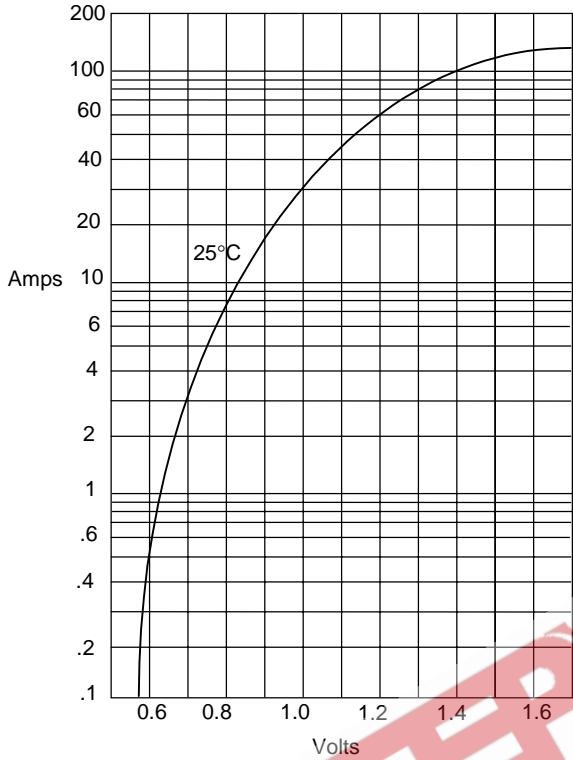
DIM	DIMENSIONS				NOTE
	INCH ES		MM		
	MIN	MAX	MIN	MAX	
A	1.180	1.195	29.97	30.35	
B	.220	NOM	5.08	NOM	2PL
C	.027	.037	0.69	0.94	
E	.350	.370	8.89	9.40	
F	1.490	1.510	37.85	38.35	
G	.695	.715	17.65	18.16	
H	.088	.098	2.24	2.49	
J	.240	.260	6.10	6.60	
K	.115	.135	2.92	3.43	
L	.230	.250	5.84	6.35	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	∅
P	.015	.025	0.38	0.64	

\*Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

# FST7120SM thru FST71100SM

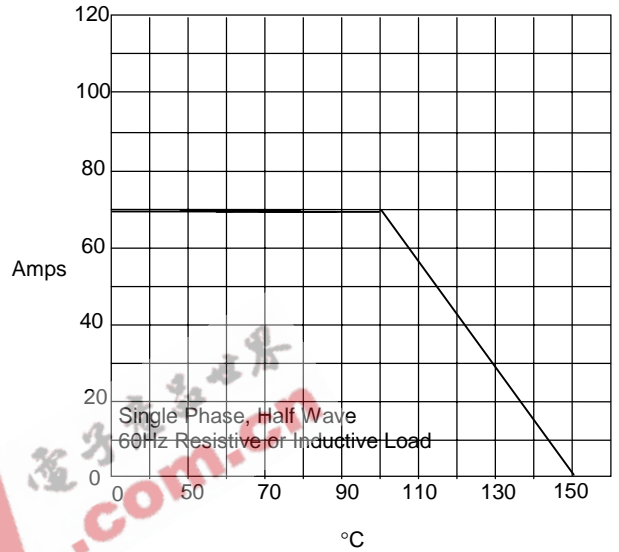


Figure 1  
Typical Forward Characteristics



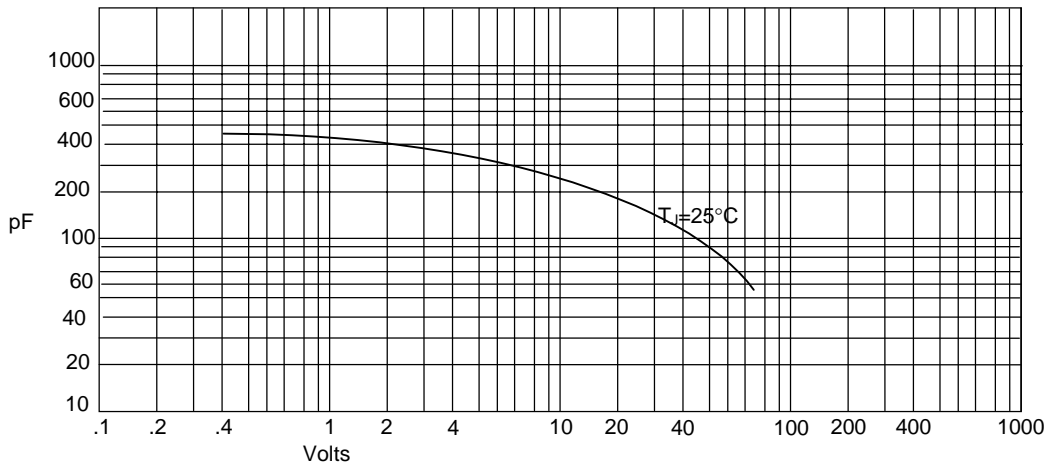
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

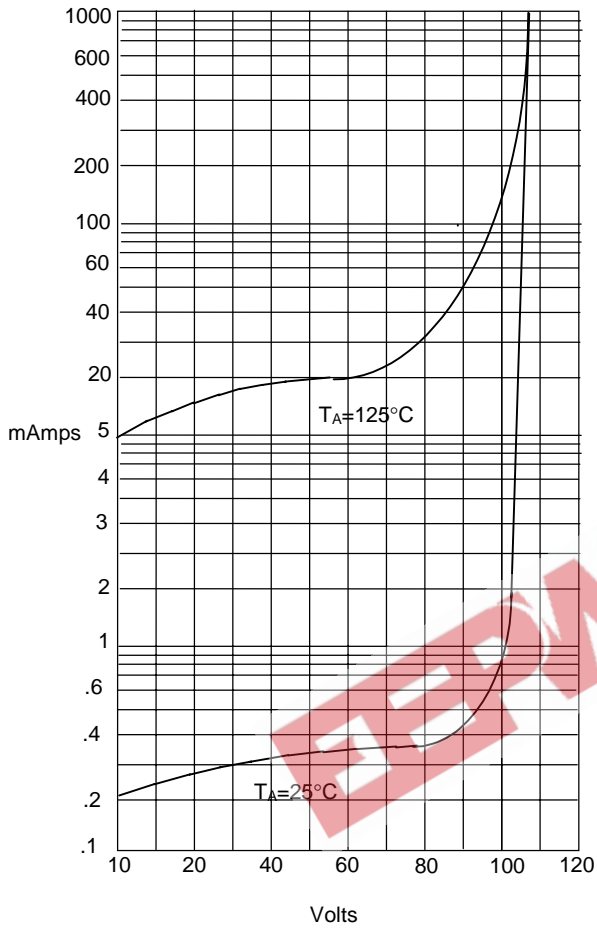
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus Reverse Voltage - Volts

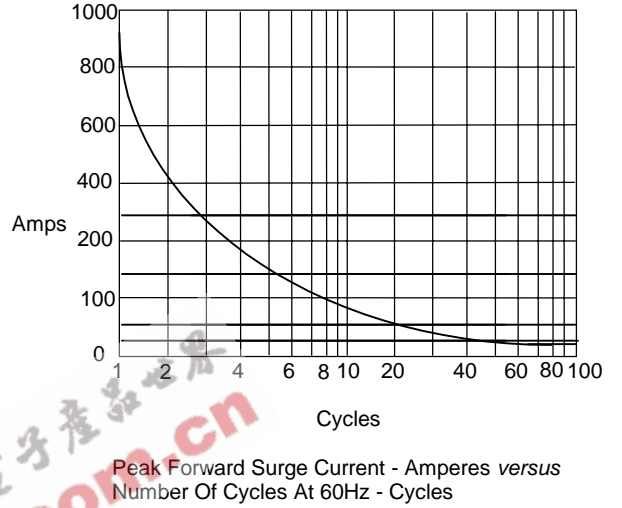


Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles